



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/643,249

08/18/2003

Eugene Feng

2102397-992780

4655

26379

7590

09/28/2006

DLA PIPER RUDNICK GRAY CARY US, LLP  
2000 UNIVERSITY AVENUE  
E. PALO ALTO, CA 94303-2248

EXAMINER

STIGLIC, RYAN M

ART UNIT

PAPER NUMBER

2112

DATE MAILED: 09/28/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/643,249	Applicant(s) FENG ET AL.	
	Examiner Ryan M. Stiglic	Art Unit 2112	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 18 July 2006.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 11-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 11-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 August 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

### **DETAILED ACTION**

1. Claims 11-20 are pending and have been examined.
2. Claims 11-20 are rejected.

### ***Response to Arguments***

3. Applicant's arguments, see page 5, filed July 18, 2006, with respect to independent claims 11 and 18 have been fully considered and are persuasive. The previous grounds of rejection will not be applied. In particular, applicant's argument, "Structurally, this is also different because in the present invention, this is accomplished by the use of a multiplexer to select the one protocol from the plurality of protocols supplied based upon the select signal" is persuasive when taken in combination with the interface/decoder circuit "for receiving communication signals from the communication bus, and for decoding the communication signals, and for generating a plurality of protocol signals." The Chang reference does not appear to disclose a multiplexer used to select one of a plurality of protocol signals, *assumed by the Examiner to be different than the communication signals*, generated by an interface/decoder circuit.

4. Applicant's arguments, regarding claim 20, filed July 18, 2006 have been fully considered but they are not persuasive. Applicant alleges claim 20 is allowable because, "there is nothing in Chang that discloses the use of a delay circuit as claimed in claim 20 (page 5)." The Examiner respectfully disagrees. The multiplexer 902 of Figure 9 of Chang serves as the delay circuit for "receiving communication signals and for generating a delayed communication signal (see rejection below)."

*Drawings*

5. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the decoder/interface circuit for receiving communication signals from the communication bus, and for decoding the communication signals, and for generating a plurality of protocol signals (of claims 11-19); must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claims 11-19 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Independent claims 11 and 18 refer to an interface/decoder circuit “for receiving communication signals from the communication bus, and for decoding the communication signals, and for generating a plurality of protocol signals” which is not enabled by the originally filed specification. The specification, referring to Figure 4, states “the interface logic 60 comprises a multiplexer 64 which receives communication in a plurality of different protocols such as SPI, SD, FWH or LPC communication bus... From the multiplexer 64, one protocol is selected and is outputted from the multiplexer 64 and is applied to a finite state machine 62 (paragraph [0017]).” The specification also states “In this embodiment, the configurable host bus interface logic circuit 60 receives a plurality of protocol signals from various buses such as the SPI, SD, FWH or LPC (paragraph [0021]).” As such, the specification lacks enablement for an interface/decoder circuit for “generating a plurality of protocol signals.”

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claim 20 is rejected under 35 U.S.C. 102(e) as being anticipated by Chang et al.

(US006851014B2).

For claim 20 Chang discloses:

A memory device for receiving communication signals from a communication bus comprising:

- A decoding circuit connected to the communication bus for receiving the communication signals and for generating a protocol select signal (Fig. 9, items 204 and 210 [Operation Interface and Protocol Detection CKT] make up the interface circuit of applicant's invention; col. 8, ll. 25-49; col. 5, line 12 – col. 6, line 2);
- A first non-volatile memory for storing the protocol select signal (please see *section 3* of the Final Office Action dated November 28, 2005 pages 2-5 and the discussion regarding a user-selectable non-volatile memory; With regards to a non-volatile memory for storing user selected protocol and for generating the select signal, corresponding to the user selected protocol the Examiner respectfully submits a memory is inherently present for storing the SEL signal of figure 9. Support for this assertion can be found in col. 7, ll. 43-46 (or ll. 56-58) and figure 7. The cited passage reads, "Thereafter, LPC/FWH

protocol circuit 208/206 handles read and write operations for memory device in a well-known manner using the LPC/FWH communication protocol.” By using *thereafter* it is implied the LPC or FWH protocol circuit will be enabled for the remainder of operation. This therefore implies a memory is used to supply the enable (or select) signal because if a memory was not used neither enable signals would be active. For this the Examiner directs the applicant’s attention to figure 8 of Chang. Figure 8 teaches a programming logic circuit for receiving the user selected protocol and outputting selection signals to be an inherent memory which then sends the signals to the respective protocol circuits for enabling. If a memory was not present the signals indicative of an enabled protocol would activate/deactivate according to the value of the data or addresses that are inputs to the logic gates of figure 8 (NOR, inverter, & AND gates). Since none of the logic gates of figure 8 have memory the values at the inputs of the gates immediately affects the output. As such the enable signals would constantly toggle with values on the bus lines, thus enabling/disabling the protocol circuits. As applicant can clearly see, there must be an inherent memory to hold the appropriate enable signals for use with memory array 202 of figure 2.);

- A delay circuit connected to the communication bus for receiving the communication signals and for generating a delayed communication signal (Fig. 9, 902; col. 8, ll. 25-49);
- A second non-volatile memory (Fig. 2, 202); and
- A controller for receiving the delayed communication signal and the protocol select signal, and for controlling the operation of the second non-volatile memory in response to

Art Unit: 2112

the delayed communication signal as selected by the protocol select signal (Fig. 2 and 9, 206 and 208; col. 5, ll. 11-67).

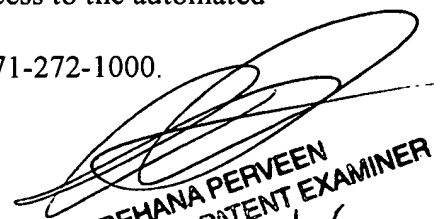
### *Conclusion*

10. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure because they relate to selecting the appropriate protocol to implement.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan M. Stiglic whose telephone number is 571.272.3641. The examiner can normally be reached on Monday - Friday (6:00-3:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rehana Perveen can be reached on 571.272.3676. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



REHANA PERVEEN  
SUPERVISORY PATENT EXAMINER  
9/26/06